Site: Shiloh Church Road Site Task: Excavation

Date: 9/6/19

Predicted Predominant Wind Direction: NW

Predicted Maximum Wind Speed: 6 mph





Ludlum 3030 Serial Number:	187982	Cal Due Date:	2/19/2020		
Th-230 4π efficiency:	0.3244	Tc-99 4π efficiency:	0.3155		
Pu-239 4π efficiency:	0.3996	C-14 4π efficiency:	0.0679		
Am-241 4π efficiency:	0.3452	Sr-90 4π efficiency:	0.4264		

Notes: AC-5 assigned to the Excavation Team.

Radionuclide Air Sampling Daily Summary Shiloh Church Road Site Halifax County, Virginia

	Halifax Cou	nty, Virginia						
Date: 9/6/19 Predicted Predominant Wind Direction: NW								
	Public I	Results						
Effluent Limits	Alpha (Ra-226)	9.00E-13	Beta (Pb-210)	6.00E-13				
	% Of Effluent		% Of Effluent					
	Concentration		Concentration					
Air Sampler Location	Limit	Alpha Result	Limit	Beta Result				
	Worker	Results						
Derived Air Concentrations	Alpha (Ra-226)	3.00E-10	Beta (Pb-210)	1.00E-10				
Tasks Monitored	% Of DAC	Alpha Result	% of DAC	Beta Result				
AC-5 - Excavation Team	<0.09%	2.92E-14	<9.65%	-4.44E-12				

Comments:

Site: Shiloh Church Road Site

Task: Excavation

Air Sampling Unit: AirCheck XR5000 AC-5

Ory Cal Serial: 132112	l: 132112 Cal Due Date: 7/11/20			α isotope of concern		Ra-226	β isotope of concern		Pb-210				
Pre Flow Rate (LPM)		4.648			Post Flow Rate (LPM)			4.882					
Start Date/Time	9/6/19 8:38			Stop Date/Time			9/6/19 16:00						
				Total Liters			1982.1						
Analysis Date/Time	Hours After Collection	Bkg count time (min)	Sample count time (min)	α bkg (counts)	gross α (counts)	net α (cpm)	α MDA (μCi/mL)	α (μCi/mL)	β bkg (counts)	gross β (counts)	net β (cpm)	β MDA (μCi/mL)	β (μCi/mL)
9/9/19 13:35	69.6	120	90	75	60	0.04	2.77E-13	2.92E-14	4654	3371	-1.33	9.65E-12	-4.44E-12
	III.	Diameter 4 times	0				ND4		0.66			0.1404	
Final Result	Hours After Collection	Bkg count time (min)	Sample count time (min)	α bkg (counts)	gross α (counts)	net α (cpm)	α MDA (μCi/mL)	α (μCi/mL)	β bkg (counts)	gross β (counts)	net β (cpm)	β MDA (μCi/mL)	β (μCi/mL)
9/9/19 13:35	69.6	120	90	75	60	0.04	2.77E-13	2.92E-14	4654	3371	-1.33	9.65E-12	-4.44E-12
							% DAC:	<0.09%				% DAC:	<9.65%

Notes: Assigned to Excavation Team.